

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): Compliant substrate (~~5, 20, 30~~) comprising a carrier (~~1, 14, 21, 31~~) and at least one thin layer (~~4, 13, 23, 34~~) formed on the surface of said carrier and intended to be used as a seed for a hetero-epitaxial growth, the carrier and the thin layer being joined one to another by joining means (~~3, 11, 15, 16, 24, 25~~) such that the stresses brought by said structure are absorbed in whole or in part by the thin layer and/or the joining means, wherein said joining means comprises having a buried layer of microcavities delimiting a superficial thin layer in the carrier such that stresses brought to said compliant substrate and/or the layer of microcavities.

Claim 2 (Withdrawn): Process for fabricating a compliant substrate according to claim 1, characterized in that the layer of microcavities is created through implantation by bombardment of one or more gas species.

Claim 3 (Withdrawn): Process according to claim 2, characterized in that the gas species are chosen from among rare gases, hydrogen and fluorine.

Claim 4 (Withdrawn): Process according to claim 2, characterized in that doping agents are associated with the one or more gas species.

Claim 5 (Withdrawn): Process according to claim 2, characterized in that diffusion is made of the one or more implanted gas species.

Claim 6 (Withdrawn): Process according to claim 2, characterized in that implantation is followed by heat treatment.

Claim 7 (Withdrawn): Process according to claim 2, characterized in that said implantation is made via the substrate surface, the region lying between the substrate surface and the layer of microcavities providing said thin layer.

Claim 8 (Withdrawn): Process according to claim 7, characterized in that the region lying between the substrate surface and the layer of microcavities is thinned to form said thin layer.

Claim 9 (Withdrawn): Process according to claim 7, characterized in that implantation by bombardment is made via a sacrificial layer (2) carried by said substrate surface, said sacrificial layer then being removed.

Claim 10 (Withdrawn): Process according to claim 2, characterized in that said implantation is made via the substrate surface, this surface carrying a first thin layer, the region lying between the substrate and the layer of microcavities providing a second thin layer.

Claim 11 (Withdrawn): Process according to claim 10, characterized in that the layer of microcavities is made in the vicinity of the interface between the first thin layer and the substrate.

Claim 12 (Withdrawn): Process according to claim 10, characterized in that implantation by bombardment is made via a sacrificial layer carried by the first thin layer, said sacrificial layer then being removed.

Claim 13 (currently amended): Compliant substrate according to claim 35, characterized in that said bonding interface ~~with controlled bonding energy~~ is an interface resulting from a surface preparation and/or an interface resulting from a heat treatment and/or an interface resulting from a creation of defects.

Claim 14 (currently amended): Compliant substrate according to claim 13, characterized in that said surface preparation is a control of roughness and/or hydrophylia.

Claim 15 (currently amended): Compliant substrate according to Claim 13, characterized in that said ~~joining zone~~ bonding interface also comprises at least one intermediate layer ~~(22, 32, 33)~~ between the thin layer ~~(23, 34)~~ and the carrier ~~(21, 31)~~.

Claim 16 (currently amended): Compliant substrate according to claim 15, characterized in that the intermediate layer ~~(22, 32, 33)~~ is a metal layer or metal alloy layer.

Claim 17 (Previously Presented): Compliant substrate according to claim 15, characterized in that said at least one intermediate layer is formed such that it comprises non-homogeneities.

Claim 18 (Cancelled)

Claim 19 (Currently amended): Compliant substrate ~~(5, 20, 30)~~ according to Claim 1, characterized in that said thin layer ~~(4, 13, 23, 34)~~ is in a first crystalline material and is intended to be used as hetero-epitaxial growth seed for a second crystalline material forming said structure.

Claim 20 (Previously presented): Compliant substrate according to claim 19, characterized in that said thin layer is a pre-stressed layer by the presence of a foreign element in said first crystalline material.

Claim 21 (Original): Compliant substrate according to claim 20, characterized in that the foreign element is inserted through implantation by bombardment and/or inserted by diffusion.

Claim 22 (Previously Presented): Compliant substrate according to Claim 20, characterized in that said foreign element is a doping agent of the thin layer.

Claim 23 (currently amended): Compliant substrate (~~5, 20, 30~~) according to Claim 19, characterised in that said first crystalline material is a semiconductor.

Claim 24 (currently amended): Application of the compliant substrate (~~5, 20, 30~~) according to Claim 19, to the hetero-epitaxial growth of a crystalline material chosen from among GaN, SiGe, AlN, InN, and SiC.

Claim 25 (Withdrawn): Process according to Claim 3, characterized in that doping-agents are associated with the one or more gas species.

Claim 26 (Withdrawn): Process according to Claim 6, characterized in that said implantation is made via the substrate surface, the region lying between the substrate surface and the layer of microcavities providing said thin layer.

Claim 27 (Withdrawn): Process according to Claim 6, characterized in that said implantation is made via the substrate surface, this surface carrying a first thin layer, the

region lying between the substrate and the layer of microcavities providing a second thin layer.

Claim 28 (Withdrawn): Process according to Claim 11, characterized in that implantation by bombardment is made via a sacrificial layer carried by the first thin layer, said sacrificial layer then being removed.

Claim 29 (Currently Amended): Compliant substrate according to Claim 14, characterized in that said ~~joining zone~~ bonding interface also comprises at least one intermediate layer (~~22; 32, 33~~) between the thin layer (~~23; 34~~) and the carrier (~~21; 31~~).

Claim 30 (Cancelled)

Claim 31 (Currently Amended): Compliant substrate (~~5, 20, 30~~) according to Claim 1, characterized in that said superficial thin layer (~~4, 13, 23, 34~~) is in a first crystalline material and is intended to be used as hetero-epitaxial growth seed for a second crystalline material forming said structure.

Claim 32 (Previously presented): Compliant substrate according to Claim 21, characterized in that said foreign element is a doping agent of the thin layer.

Claim 33 (currently amended): Compliant substrate (~~5, 20, 30~~) according to Claim 22, characterized in that said first crystalline material is a semiconductor.

Claim 34 (Currently Amended): Application of the compliant substrate (~~5, 20, 30~~) according to Claim 23, to the hetero-epitaxial growth of a crystalline material chosen from among GaN, SiGe, AlN, InN and SiC.

Claim 35 (currently amended): Compliant substrate (~~5, 20, 30~~) comprising a carrier (~~1, 14, 21, 31~~) and at least one thin layer (~~4, 13, 23, 34~~) formed on the surface of said carrier ~~and intended to be used as a seed for a hetero-epitaxial growth~~, the carrier and the thin layer being joined one to another by a bonding interface whose bonding energy is controlled to permit absorption, in whole or in part by the thin layer and/or the bonding interface, of stresses brought to said compliant substrate joining means (~~3, 11, 15, 16, 24, 25~~) such that ~~the stresses brought by said structure are absorbed in whole or in part by the thin layer and/or the joining means, wherein said joining means comprises a bonding interface whose bonding energy is controlled to permit the absorption of said stresses.~~

Claims 36-49 (canceled)

Claim 50 (new): Compliant substrate according to claim 1, wherein said stresses are brought by a hetero-epitaxial growth realized on the thin layer.

Claim 51 (new): Compliant substrate according to claim 35, wherein said stresses are brought by a hetero-epitaxial growth realized on the thin layer.